

15071 0053

Hupp

part 4

WITNESS DIRECT TESTIMONY SUMMARY

Witness: Michael S. Hupp, Jr.

Title: Director of Power Generation Regulated Operations - Dominion Generation

Summary:

Company Witness Michael S. Hupp, Jr. describes the manner in which the Company compared the Greenville County Power Station project ("Project") to market alternatives through a formal Request for Proposals ("RFP"), as well as the results of that RFP process. His testimony is responsive to the Schedule 46 requirement to provide information relative to the need and prudence of the proposed Project.

An RFP was issued on November 3, 2014. The full review and evaluation of proposals received was conducted over the next several months when the RFP process concluded on March 10, 2015.

The scope for potential projects was described in the RFP as follows:

- Product: Capacity, energy, ancillary services and environmental attributes from a specific new or existing facility, that is fully dispatchable and 100% dedicated;
- Term: Ten to twenty years, commencing between January 1, 2019 and May 31, 2020;
- Delivery Point: Facilities located in and connected to the following PJM Transmission Zones: Dominion, Baltimore Gas and Electric Company, Potomac Electric Power Company Zone, and the eastern portion of Allegheny Power Systems Zone;
- Technology & Fuel Reliability: Existing, proven technology with demonstrated reliable generation performance, and supported by a comprehensive fuel strategy; and
- Development Plan: For new facilities, a well defined and credible development plan to meet proposed timelines.

Proposals were evaluated based on price and non-price factors established prior to bids being received.

The self-build proposal was confirmed to be economically more favorable than all of the proposals, and also received the highest overall score in the non-price evaluation.

**DIRECT TESTIMONY  
OF  
MICHAEL S. HUPP, JR.  
ON BEHALF OF  
VIRGINIA ELECTRIC AND POWER COMPANY  
BEFORE THE  
STATE CORPORATION COMMISSION OF VIRGINIA  
CASE NO. PUE-2015-00075**

1   **Q.    Please state your name, business address, and position with Virginia Electric and**  
2       **Power Company (“Dominion Virginia Power” or the “Company”).**

3    A.   My name is Michael S. Hupp, Jr., and I am Director of Power Generation Regulated  
4       Operations in the Dominion Generation business segment of Virginia Electric and Power  
5       Company (“Dominion Virginia Power” or the “Company”). My business address is 5000  
6       Dominion Boulevard, Glen Allen, Virginia 23060.

7   **Q.    Please describe your areas of responsibility with the Company.**

8    A.   In my current position, I am responsible for overseeing the Energy Supply group which is  
9       responsible for a variety of commercial activities in support of serving the wholesale  
10      forward and daily load requirements of the Company. This includes the offering of  
11      Company-owned generation assets into PJM, the forward and daily net purchase of  
12      required energy and capacity from PJM, and administration of non-utility generator  
13      (“NUG”) contracts. A statement of my background and qualifications is attached as  
14      Appendix A.

15   **Q.    What is the purpose of your testimony in this proceeding?**

16   A.   I am testifying in support of the Company’s request for State Corporation Commission of  
17      Virginia (“Commission”) approval of a certificate of public convenience and necessity  
18      (“CPCN”) to construct and operate the Greenville County Power Station

1 (“Greensville”), an approximately 1,588 megawatt (MW) (nominal) gas-fired combined-  
2 cycle electric generating facility in Greensville County, Virginia, and its related  
3 transmission interconnection facilities (the “Project” or “Greensville Project”). The  
4 Company proposes to have the power station in operation by December 2018. The  
5 Company is also requesting Commission approval of a rate adjustment clause, designated  
6 Rider GV, under § 56-585.1 A 6 (“Subsection A 6”) of the Code of Virginia (“Va.  
7 Code”) for timely and current recovery of the costs of the Project, which in total are  
8 estimated at \$1.33 billion, excluding financing costs.

9 Specifically, I will describe the manner in which the Company compared the Project to  
10 market alternatives through a formal Request for Proposals (“RFP”), as well as the results  
11 of that RFP process. In addition, my testimony and RFP report included as  
12 Extraordinarily Sensitive Schedule 1 are responsive to the Subsection A 6 requirement to  
13 demonstrate that the Company has considered and weighed alternative options, including  
14 third-party market alternatives, and the Schedule 46 requirement to provide information  
15 relative to the need and prudence of the proposed Project. Extraordinarily Sensitive  
16 Schedule 1 is the confidential version of the report filed with the Commission on April  
17 24, 2015 describing the RFP process. The original report has been modified to revise the  
18 designations for confidential and extraordinarily sensitive information.

19 **Q. Please describe your experience as it pertains to interacting with the Company’s**  
20 **NUGs and the wholesale power markets generally.**

21 **A.** I joined the Company in 1999 as a Petroleum Engineer, and shortly thereafter moved into  
22 the Business Planning and Market Analysis (“BPMA”) group. In 2003, I transitioned  
23 into the Pricing and Structuring group within BPMA, where I was responsible for the

1 evaluation and structuring of a variety of wholesale market contracts for Dominion's  
2 merchant businesses (generation, retail, and gas). In this role I was exposed to a variety  
3 of market analytics including the evaluation of non-standard, exotic instruments and the  
4 principles and practices of generation revenue evaluation.

5 **Q. Why did the Company issue a generation RFP in 2014?**

6 A. The need for additional generation resources to serve the Company's projected customer  
7 load was identified in the Company's 2011-2014 Integrated Resource Plans ("Plans"). In  
8 its Final Order granting approval of the Brunswick County Power Station, the  
9 Commission explicitly stated its interpretation of the 2013 amendment to Va. Code § 56-  
10 585.1 A 6 regarding third-party market alternatives:

11 Specifically, the 2013 General Assembly added the following legal  
12 requirement for CPCN proceedings: "A utility seeking approval to  
13 construct a generating facility shall demonstrate that it has  
14 considered and weighed alternative options, including third-party  
15 market alternatives, in its selection process. Although this new law  
16 is not applicable to the instant case, it clearly will affect CPCN  
17 proceedings in the future. This is a new statutory standard that an  
18 applicant will have to satisfy. That is, under this new statute, a  
19 CPCN applicant no longer has the option of trying to prove its case  
20 without evidence of consideration of actual third-party alternatives  
21 in its selection process.

22 *Application of Virginia Electric and Power Company, For approval and certification of*  
23 *the proposed Brunswick County Power Station and related transmission facilities, and*  
24 *for approval of a rate adjustment clause, designated Rider BW, Case No. PUE-2012-*  
25 *00128, Final Order (August 2, 2013) (footnotes omitted).*

26 For this specific identified need for generation, the Company believes that conducting an  
27 RFP is an appropriate means to meet this requirement. Consequently, in combination  
28 with development of a self-build proposal, the Company issued an RFP to provide the

1 Company with incremental dispatchable intermediate or base load generation to  
2 commence in the 2019-2020 timeframe.

3 **Q. How was the RFP conducted?**

4 A. First, the Company established an RFP evaluation team separate from the team leading  
5 the development of the self-build proposal. Over the course of the RFP process, the  
6 Dominion Virginia Power self-build team was treated like the other third parties and  
7 followed substantially identical protocols and processes.

8 On November 3, 2014, the Company publicly announced the RFP and provided notice  
9 directly to 19 potential bidders, including the Company's self-build team. Potential  
10 bidders were directed to the 2014 Generation RFP website on the Dominion website  
11 ([www.dom.com/2014GenRFP](http://www.dom.com/2014GenRFP)), where RFP instructions and additional information were  
12 available for download. Additionally, there was an opportunity for potential bidders to  
13 ask clarifying questions on the RFP process via a dedicated email address.

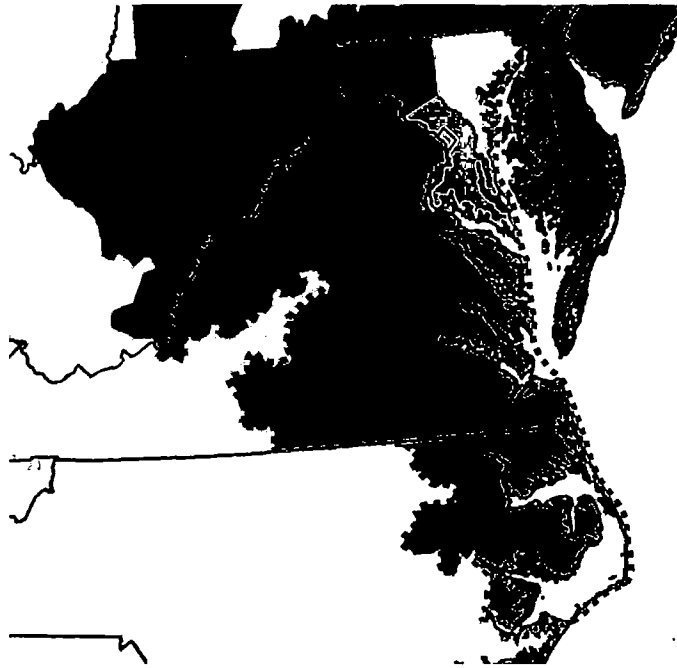
14 **Q. What was the schedule for completing the RFP process?**

15 A. The RFP instructions informed bidders that an Intent to Bid form and Confidentiality  
16 Agreement would be due by November 14, 2014, with proposals due no later than  
17 December 19, 2014. The Company's self-build team was required to submit its proposal  
18 a day earlier, on December 18, 2014. After completing a full review and evaluation of  
19 the proposals received, the Company concluded the RFP on March 10, 2015.

20 **Q. What was the scope of the RFP?**

21 A. In the RFP, the scope was described as follows:

- 1       1.     Product: “Unit Firm Capacity,” defined as capacity, energy, ancillary services  
2             and environmental attributes delivered from a specific new or existing facility.  
3             Unit Firm Capacity shall be a fully dispatchable product and the Company shall  
4             have the exclusive right to 100% of the net electrical output of the facility from  
5             which such fully dispatchable output will be delivered. The RFP is for base load  
6             and intermediate resources only.
- 7       2.     Term: Any contract delivery term from ten to twenty years, with the delivery of  
8             Unit Firm Capacity commencing no earlier than January 1, 2019 and no later than  
9             May 31, 2020.
- 10      3.     Quantity: Up to approximately 1,600 MW of summer Unit Firm Capacity.  
11             Proposals must offer a minimum of 300 MW of summer Unit Firm Capacity. At  
12             its sole discretion, the Company may consider proposals for multiple units which  
13             are individually less than 300 MW, but in aggregate total 300 MW or more, if  
14             those units are co-located or otherwise closely affiliated.
- 15      4.     Delivery Point: Facilities located in, and delivering power to, the Company’s bulk  
16             power transmission system in the PJM Dominion Transmission Zone (“Dom  
17             Zone”), or in near proximity to its Dom Zone load, as defined below.  
18             The Company will not consider any Proposals for facilities that are not directly  
19             interconnected to the PJM transmission system.



The RFP is limited to facilities interconnected to one of the following PJM zones: Dominion Zone, Baltimore Gas and Electric Company Zone, Potomac Electric Power Company Zone, and the eastern portion of Allegheny Power Systems Zone. Additionally, the interconnection point(s) must be electrically east of the terminations of PJM interfaces AEP-DOM, AP South and Black Oak – Bedington.

5. Technology & Fuel Reliability: All proposals must utilize an existing, proven technology, with demonstrated reliable generation performance. Proposals must also be supported by a complete and definitive fuel strategy, that a) demonstrates the ability to reliably procure fuel to support Unit Firm Capacity all 365 days of the year and for the full contract term, and b) minimizes any mismatch between the contract price for energy and the seller's cost of fuel.
6. Development Plan: All Proposals for new facilities must have a well defined and credible development plan for the bidder to complete the development, construction and commissioning of the facility on the proposed timeline.



1    **Q.     Please describe the bids received.**

2    A.     The Company received a total of eleven proposals for eight separate generation units or  
3           combinations of units. These projects represented a robust cross-section of third-party  
4           alternatives, including a mixture of new and existing facilities of varying size and fuel  
5           type (gas, oil and coal) spanning three states. Contract terms ranged from ten to twenty  
6           years. Two of the bids failed to conform to the RFP scope but were included in the  
7           evaluation for reference purposes.

8    **Q.     How were the proposals evaluated?**

9    A.     The Company evaluated the proposals based on price and non-price factors. The price  
10          evaluation is discussed in the direct testimony of Company Witness Glenn A. Kelly and  
11          was conducted in a manner consistent with integrated resource planning analysis.

12   **Q.     Please describe the non-price factor evaluation.**

13   A.     Prior to the bid due date, the Company developed non-price factors and established their  
14          respective weightings as part of the total non-price evaluation.

15          The Company assembled an in-house team to conduct the non-price evaluations,  
16          including members having knowledge in areas of generation project development, power  
17          plant engineering and operations, environmental and permitting, fuel supply, power  
18          purchase agreements, counterparty credit risk and accounting. Team members were each  
19          assigned a non-price category, and scored all proposals under that category. This allowed  
20          fair and consistent comparisons to be made among non-price categories for each  
21          competing proposal.

1 As the non-price evaluation reviews were conducted, certain key risks were compiled and  
2 included in the final evaluation ("Key Risk Factors"). These Key Risk Factors, while not  
3 reflected in the price and non-price evaluations, were deemed significant enough to  
4 independently impact the overall favorability of a Proposal, and were thus also included  
5 as an independent consideration in the final summary evaluation.

6 **Q. Was the Company's evaluation of the results conclusive?**

7 A. Yes. For the non-price portion of the evaluation, the self-build Greenville Project was  
8 evaluated to be more favorable than any third-party alternative and received the highest  
9 overall score.

10 As discussed in the direct testimony of Company Witness Kelly, the price evaluation  
11 confirmed that all of the proposals were economically less favorable for Dominion  
12 Virginia Power's customers than the self-build proposal.

13 **Q. Will the Company continue to engage with third-party providers during the normal**  
14 **course of business?**

15 A. Yes, the Company routinely considers third-party options outside of the formal RFP  
16 process. The Company will continue to evaluate third-party proposals received,  
17 dispatchable or intermittent, to determine if they are in the best interests of its customers.

18 **Q. Please summarize your testimony.**

19 A. With the 2014 RFP, we formally solicited offers from third-party market alternatives and  
20 performed an objective evaluation. Numerous proposals were received covering a wide  
21 range of generating resources. The results of the RFP were unambiguous. By all

1           measures, these results support the conclusion that selection of the Greenville Project is  
2           in the best interests of the Company's customers.

3   **Q.     Does this conclude your direct testimony?**

4           A.     Yes, it does.

**BACKGROUND AND QUALIFICATIONS  
OF  
MICHAEL S. HUPP, JR.**

Michael S. Hupp graduated from West Virginia University in 1999 with a Bachelor of Science degree in Petroleum & Natural Gas Engineering. In 2004, he received a Master's degree in Business Administration from Virginia Commonwealth University.

Mr. Hupp has worked for Dominion for 16 years in a variety of functions including as a Petroleum Engineer in the Exploration and Production group, the Business Planning and Market Analysis ("BPMA") group within Dominion Resources Services, Inc. ("DRS"), and eventually the Pricing and Structuring ("P&S") segment of the BPMA organization. He was promoted to Director of the P&S group in 2007 which marked his first leadership role in his career.

In 2011, Mr. Hupp joined the Financial Analysis ("FA") group within DRS where he served as Director of the group. While in FA, he was responsible for overseeing the financial evaluation of a variety of investment opportunities by all segments of Dominion. His group studied the impacts of potential investment opportunities on shareholders and was responsible for the development of all financial analyses used for internal governance processes. In August of 2014, Mr. Hupp transitioned into the role of Director of Power Generation Regulated Operations where he currently serves.

Mr. Hupp has previously testified before the Virginia State Corporation Commission.

## CONFIDENTIAL REPORT ON 2014 GENERATION REQUEST FOR PROPOSALS

### INTRODUCTION

On November 3, 2014, Dominion Virginia Power (“DVP” or the “Company”) issued a Request for Proposals (“RFP”) to provide the Company with incremental dispatchable, intermediate or baseload generation to commence in the January 1, 2019 – May 31, 2020 timeframe. This need for additional generation resources to serve the Company’s projected customer load was identified in the Company’s 2011-2014 Integrated Resource Plans (“IRPs”). This document provides an overview of the RFP process used by DVP to determine the preferred alternative for obtaining the needed generation.

### RFP PROCESS OVERVIEW

The Company assembled an in-house team, separate from the team leading the development of the self-build proposal, to conduct the RFP and the bid evaluations.

Prior to releasing the RFP, the Company met with members of the Staff of the State Corporation Commission of Virginia (“Commission”) on October 27, 2014 to present details of the RFP process including the scope and requirements.

On November 3, 2014, the Company publicly announced the RFP. Notice of the RFP was sent directly to 19 potential bidders, including the Company’s self-build team (“BDGC”), and was also issued via a news release that was disseminated to numerous major media outlets. The notice directed interested parties to the 2014 Generation RFP website on DVP’s website ([www.dom.com/2014GenRFP](http://www.dom.com/2014GenRFP)), where RFP instructions and additional information were available for download (Attachment A). A copy of the news release, and lists of the publishers and publications that received the release, are included as Attachment B(1). A list of companies directly receiving the news release is provided as Confidential Attachment B(2).

The 2014 Generation RFP website contained a Questions and Answers (“Q&A”) section that included (1) a dedicated Company email address to which potential Bidders could direct questions ([2014GenRFP@dom.com](mailto:2014GenRFP@dom.com)), and (2) a link to a general information Q&A document in PDF format that was updated periodically as questions were received and answered. All questions received at the Company email address were responded to via email, and those Q&As perceived to be of general interest to potential Bidders were added to the Q&A document on the website. Attachment C(1) includes the final comprehensive Q&A document as posted on the website, and Extraordinarily Sensitive Attachment C(2) includes a list of questions from potential Bidders and the Company’s responses as communicated through the [2014GenRFP@dom.com](mailto:2014GenRFP@dom.com) email account.

The RFP requested that bidders submit a completed Intent to Bid form and a partially-executed Confidentiality Agreement (“CA”), which were included with the RFP on the

website, by 5:00 p.m. EST on November 14, 2014. Sixteen companies submitted Intent to Bid forms expressing their intent to submit one or more proposals. Extraordinarily Sensitive Attachment D is a list of bidders that submitted Intent to Bid forms and CAs. Intent to Bid forms for fourteen projects were accepted, while four projects were rejected for being out of RFP scope.

Each accepted Bidder was then assigned a unique, password-protected eRoom in which electronic files could be both uploaded and downloaded. Available for download were the RFP document and RFP Information Form (also available on the RFP website), as well as the *RFP Form of Power Purchase Agreement* ("PPA") in Microsoft Word format, which Bidders were instructed to review and, as appropriate, revise into a document with terms and conditions acceptable to the Bidder and representative of what the Bidder would deem executable with DVP in the form of a long-term agreement.

The RFP required that Bidder Financial Information be uploaded to the respective eRoom by December 5, 2014. Project proposals from outside bidders were required to be submitted to the eRoom by 5:00 p.m. EST on December 19, 2014, including the supplemental Information Form with project-specific information and a red-line of the model PPA.

The process for submittal of the BDGC self-build proposal differed in certain respects from the outside bidder process. Like outside bidders, the BDGC team was required to submit an Intent to Bid form, a Proposal and supplemental Information Form. Communications regarding the self-build proposal were also conducted via the dedicated email account. However, the CA, Bidder Financial Information and model PPA documents were not required because they were not applicable. The self-build supplemental Information Form was also modified to exclude financial counter-party credit risk data, and to include additional information regarding project cost and performance that would be applicable to an owned facility, the "Green Sheet." Finally, for process integrity purposes the self-build Proposal and Green Sheet were required to be submitted to the eRoom by 12:00 p.m. EST (noon) on December 18, 2014, the day before external Bids were due. The self-build proposal and Green Sheet, which included a cost estimate and detailed performance criteria for the self-build combined cycle project, were emailed to Commission Staff on December 18, 2014 (Attachment E). External Bidder eRooms were locked and unable to accept uploads until 5:00 p.m. on December 18, after the BDGC documents had been both uploaded and provided to Commission Staff.<sup>1</sup>

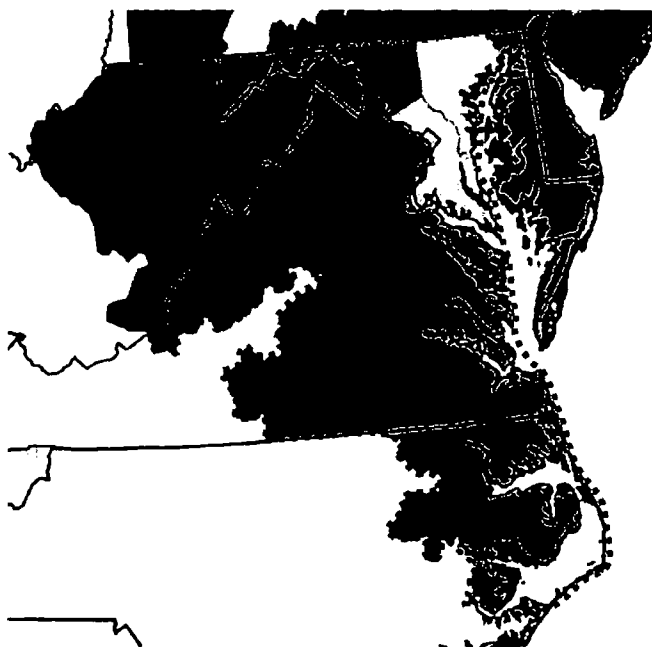
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<sup>1</sup> The BDGC proposal included two proposed unit configurations – natural gas only and dual fuel with distillate liquid fuel backup.

## **SCOPE OF THE RFP**

The RFP scope for generation resources was established to best match the need identified in the Company's most recent IRPs, consistent with Commission's Final Order approving the Company's Brunswick County Power Station. As part of a Proposal, Bidders could offer additional or alternative proposals; however, the base Proposal was required to comply with the RFP scope, which was described as follows:

1. Product: "Unit Firm Capacity" is defined as capacity, energy, ancillary services and environmental attributes delivered from a specific new or existing facility. Unit Firm Capacity shall be a fully dispatchable product and the Company shall have the exclusive right to 100% of the net electrical output of the facility from which such fully dispatchable output will be delivered. The RFP is for base load and intermediate resources only.
2. Term: Bidder may propose any contract delivery term from ten to twenty years, with the delivery of Unit Firm Capacity commencing no earlier than January 1, 2019 and no later than May 31, 2020.
3. Quantity: The RFP is for up to approximately 1,600 MW of summer Unit Firm Capacity. Proposals must offer a minimum of 300 MW of summer Unit Firm Capacity. At its sole discretion, the Company may consider Proposals for multiple units which are individually less than 300 MW, but in aggregate total 300 MW or more, if those units are co-located or otherwise closely affiliated.
4. Delivery Point: The Company will only consider Proposals for facilities located in, and delivering power to, the Company's bulk power transmission system in the PJM Dominion Transmission Zone ("Dom Zone"), or in near proximity to its Dom Zone load, as defined below. The Company will not consider any Proposals for facilities that are not directly interconnected to the PJM transmission system.



#### Location Requirements for Proposals

This RFP is limited to facilities interconnected to one of the following PJM zones:

- Dominion Zone,
- Baltimore Gas and Electric Company Zone,
- Potomac Electric Power Company Zone, or
- Eastern portion of Allegheny Power Systems Zone.

Additionally, the interconnection point(s) must be electrically east of the terminations of PJM interfaces AEP-DOM, AP South and Black Oak – Bedington.

5. **Technology & Fuel Reliability:** All Proposals must utilize an existing, proven technology, with demonstrated reliable generation performance. Proposals must also be supported by a complete and definitive fuel strategy, that a) demonstrates the ability to reliably procure fuel to support Unit Firm Capacity all 365 days of the year and for the full contract term, and b) minimizes any mismatch between the contract price for energy and the Seller's cost of fuel. Proposals must demonstrate the facility has the agreements, assets, or other arrangements necessary to support the fuel strategy. Such fuel strategies may include dual-fuel capabilities, on-site fuel storage, firm fuel transportation agreements from a liquid point, and/or redundant fuel transportation channels.
6. **Development Plan:** All Proposals for new facilities must have a well defined and credible development plan for the Bidder to complete the development, construction and commissioning of the facility on the proposed timeline. Proposals that are not site-specific or do not currently have land control for the facility site will be disqualified from the evaluation process.



## **OVERVIEW OF BIDS**

Of the fourteen projects with accepted Intent to Bid forms, six either formally withdrew before the proposal due date or declined to submit a proposal for the RFP. As a result, proposals for eight projects were ultimately submitted by the December 19, 2014 due date in response to the RFP. These projects represented a robust cross-section of third party alternatives, including a mixture of new and existing facilities of varying size and fuel type (gas, oil and coal) spanning three states. Contract terms ranged from ten to twenty years. A total of eleven proposals were received when taking into consideration the different contract term alternatives, as summarized in Extraordinarily Sensitive Attachment F of this report.

## **INITIAL PROPOSAL REVIEWS**

As a first step of the evaluation process, the proposals received were subjected to an initial review and to determine if additional or clarifying information would be required of bidders. The Company reviewed all responses for completeness and for compliance with the RFP scope as described previously in this report. Proposals that were incomplete or did not conform to one or more of the RFP scoping requirements had the potential to be eliminated from further consideration.

Two proposals, [REDACTED], failed the initial screening process, but were deemed to potentially be complete pending further clarification with the Bidders. After receiving additional information from the two parties at the Company's request, it was determined that the two proposals had failed to meet the RFP scope and requirements. Although the proposals did not qualify for the RFP, they were fully evaluated to provide additional market test data points. The reason(s) why these two proposals did not qualify included:

[REDACTED]

[REDACTED]

Additional and/or clarifying information from other bidders was also necessary for a complete evaluation. Extraordinarily Sensitive Attachment G of this report includes data requests and responses between the Company and all bidders. Proposals that passed the review phase were then evaluated against certain price and non-price factors.

## PRICE EVALUATION

The Company's price evaluation involved a three step process. First, the Company developed a levelized busbar curve to perform an initial economic screen of each proposal. The busbar curve shows the levelized cost of generation at different capacity factors and represents the Company's initial comparison of the proposals. As in the past, the Company contracted with an outside consultant, ICF Resources ("ICF"), to develop an independent forecast of future zonal energy and capacity, natural gas, coal, oil, and emissions prices for each of the proposals. While no proposals were eliminated from further consideration based on the busbar screening process, this methodology was useful in producing a graphical comparison of the costs of each alternative. Extraordinarily Sensitive Attachment H shows the resulting levelized busbar curves.

Second, the Company utilized the Strategist production cost model to estimate each proposal's expected customer value against replacement power and capacity alternatives considering the Company's generating portfolio within the PJM market.

To compare proposed PPAs of 10, 15 and 20 years to the BDGC combined cycle alternative with its projected 36 year lifespan, the Strategist model uses an economic carrying charge ("ECC") methodology to allocate the capital costs to annual values over the life of the self-build option. The ECC is the value to the ratepayer of deferring the self-build unit by a given number of years (10, 15 or 20 in this case), and is an appropriate, well established economic method for comparing unequal-lived alternatives.

To compare alternatives of different sizes on an equal basis, the customer net present value ("NPV") of each proposal, in relation to the forward market curve, was then divided by its summer capacity to derive a \$/kW NPV metric. This total NPV-per-kW metric was used to rank the bids for the price evaluation. Extraordinarily Sensitive Attachment I of this report is a table displaying the price evaluation results for each proposal, including the two that failed to meet RFP scope that were evaluated for reference purposes only. As shown, some of the proposals were better than market (positive NPV) and others were less favorable than market (negative NPV).

The last step in the evaluation process of the Company also utilized Strategist, allowing the model the opportunity to select multiple proposals in an optimization run. The purpose of this final step was to test if any combinations of resources could result in a lower cost plan than the 2014 IRP Base Plan. This final analysis confirmed the results of the NPV-per-kW ranking.

Under all three price evaluation methodologies, the Greenville project was more favorable than any third-party alternative provided through the RFP process.

## NON-PRICE EVALUATION

Prior to the bid due date, the Company developed non-price factors and established their respective weightings as part of the total non-price evaluation. The non-price factors and their respective weights were:

- Facility Location and Market Risk/Benefit (15%)
- Facility Reliability & Performance (20%)
- Fuel Strategy (20%)
- Development Plan & Status (10%)
- Environmental Risk (10%)
- Contractual Commitments (15%)
- Bidder Financial Considerations (10%)

The bid evaluation team included members having knowledge in areas of generation project development, power plant engineering and operations, environmental and permitting, fuel supply, power purchase agreements, counterparty credit risk and accounting. Team members were each assigned to a non-price category, and scored all proposals under that category. This allowed fair and consistent comparisons to be made among non-price categories for each competing proposal.

As the non-price evaluation reviews were conducted, certain key risks were compiled and included in the final evaluation ("Key Risk Factors"). These Key Risk Factors, while reflected in the price and non-price evaluations, were significant enough to independently impact the overall favorability of a proposal, and were thus also included as an independent consideration in the final summary evaluation.

Extraordinarily Sensitive Attachment J is a table displaying the non-price evaluation scores and Key Risk Factors for each proposal evaluated, including the two that failed to meet RFP scope that were evaluated for reference purposes only. For the non-price portion of the evaluation, the self build Greenville project was evaluated to be more favorable than any third-party alternative.

## EVALUATION RESULTS AND BIDDER NOTIFICATIONS

The RFP evaluation selected the self build Greenville project as the most favorable alternative in meeting the IRP identified need for generation in 2019/2020 timeframe, as it was evaluated to be more favorable than any third party alternative for both the price and non-price evaluations.<sup>2</sup> Extraordinarily Sensitive Attachment K, "RFP CC2014 Bid Information," of this report was presented to Commission Staff during a meeting on March 27, 2015. It includes a summary of the proposals received, the evaluation process, and price and non-price evaluation results.

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<sup>2</sup> The BDGC proposal was most favorable in either natural gas-only or dual-fuel configurations. See note 1 above.

On March 11, 2015 the Company e-mailed bidder notification letters to all outside parties who had submitted a proposal, informing them that their proposals had not been selected for further consideration under the RFP. Copies of the letters are included in Extraordinarily Sensitive Attachment L of this report.

**ATTACHMENT A**

**2014 GENERATION RFP WEBSITE**

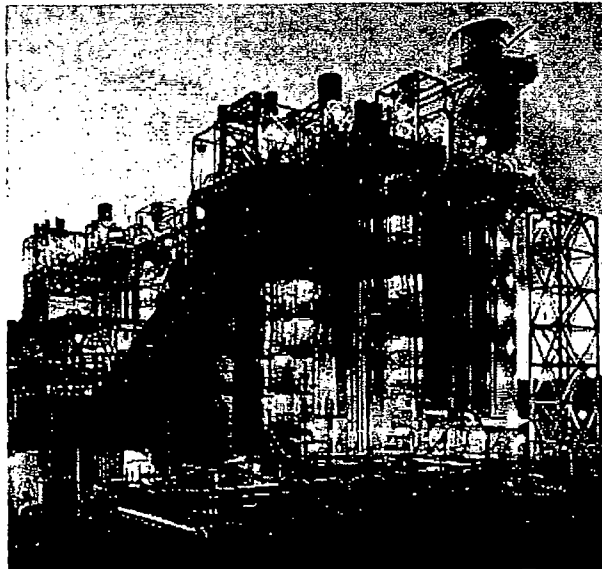
**([www.dom.com/2014GenRFP](http://www.dom.com/2014GenRFP))**

# 2014 Generation RFP

## **Dominion Virginia Power seeks bids for 1,600 megawatts of intermediate or base load power generation**

- *Delivery period beginning in the 2019/2020 timeframe*
- *Bids must be submitted on December 19, 2014*

Dominion Virginia Power, a unit of Dominion (NYSE:D), has issued a request for proposals ("RFP") for up to approximately 1,600 megawatts of intermediate or base load generation to begin delivery in the



2019/2020 timeframe. The purpose of this RFP is to evaluate options to meet expected customer demand. Proposals may be compared to a self-build combined cycle option as represented in the Company's filed Integrated Resource Plan.

This RFP is seeking power purchase agreements of 10 to 20 years for a minimum of 300 MW of new or existing dispatchable power generation, including energy and capacity. Generation resources must be located in the PJM service territory, either within the Dominion Zone or areas adjacent to the Dominion Zone, as further described in the RFP instructions.

Interested parties must submit a Notice of Intent to Bid by 5:00 PM EST on November 14, 2014 and proposals must be submitted by 5:00 PM EST on December 19, 2014.

Dominion is one of the nation's largest producers and transporters of energy. Learn more about Dominion.

## **Announcements and News Releases**

- RFP News Release

## **Intent to Bid Documents**

- Intent to Bid Form
- Confidentiality Agreement

## **RFP Bid Documents**

- 2014 RFP Instructions
- 2014 RFP Information Form

## **Questions and Answers**

- View Q&As
- Submit questions to: 2014GenRFP@dom.com

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**ATTACHMENT B(1)**

**2014 RFP NEWS RELEASE  
PUBLICATIONS RECEIVING NEWS RELEASE**





## NEWS RELEASE

150710053

### **Dominion Virginia Power seeks bids for 1,600 megawatts of intermediate or base load power generation**

- *Delivery period beginning in the 2019/2020 timeframe*
- *Bids must be submitted on December 19, 2014*

**RICHMOND, Va.**, Nov. 3, 2014 – Dominion Virginia Power, a unit of Dominion (NYSE:D), has issued a request for proposals ("RFP") for up to approximately 1,600 megawatts of intermediate or base load generation to begin delivery in the 2019/2020 timeframe. The purpose of this RFP is to evaluate options to meet expected customer demand. Proposals may be compared to a self-build combined cycle option as represented in the Company's filed Integrated Resource Plan.

This RFP is seeking power purchase agreements of 10 to 20 years for a minimum of 300 MW of new or existing dispatchable power generation, including energy and capacity. Generation resources must be located in the PJM service territory, either within the Dominion Zone or areas adjacent to the Dominion Zone, as further described in the RFP instructions.

Interested parties must submit a Notice of Intent to Bid by 5:00 PM EST on November 14, 2014 and proposals must be submitted by 5:00 PM EST on December 19, 2014.

The RFP instructions and additional information related to the process can be found at:  
[www.dom.com/2014GenRFP](http://www.dom.com/2014GenRFP)

Dominion (NYSE: D) is one of the nation's largest producers and transporters of energy, with a portfolio of approximately 23,600 megawatts of generation. Dominion operates one of the nation's largest natural gas storage systems and serves utility and retail energy customers in 10 states. For more information about Dominion, visit the company's website at [www.dom.com](http://www.dom.com).



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**Sector Media:  
Electrical Utilities**

Advantage Business Media  
AllAmericanHybrid.com  
Alternative Power Construction  
American Metal Market  
AOCS  
Bentek Energy  
BG+H Publishing  
Electric Perspectives  
Electric Power Daily  
Exchange Monitor Publications  
Floral Management magazine  
Fuel Cycle Week  
Global Solar Technology  
Government Technology  
Green Force Media  
Greenwire  
HVACR Today  
Industrial Distribution  
Law Enforcement Technology magazine  
LPGaswire  
Mechanical Engineering magazine  
Mining Connection  
Nature Publishing Group  
North American Windpower/Renew Grid  
Oil & Gas Financial Journal  
PC Magazine, CNET, etc  
Platts  
Platt's Electric Daily  
RedCoat Publishing  
Resource Recycling, Inc.  
Southwest Contractor Magazine  
Virgo Publishing  
World Oil magazine



## United States

### Virginia

#### Magazine

American School Board Journal  
 Albemarle Magazine  
 Community College Week  
 Inside Business  
 Norfolk Visitors Guide  
 AFE Facilities Engineering Journal

Alexandria  
 Charlottesville  
 Fairfax  
 Fairfax  
 Norfolk  
 Reston

#### News Service

Comtex  
 Qatar News Agency  
 Knowledge Systems  
 Gannett News Service  
 Associated Press - Norfolk Bureau  
 Associated Press - Richmond Bureau  
 Associated Press - Roanoke Bureau  
 Associated Press - Springfield, Virginia Bureau

Alexandria  
 Alexandria  
 Chantilly  
 McLean  
 Norfolk  
 Richmond  
 Roanoke  
 Springfield

#### Newspaper

USA Today  
 Washington Business Journal  
 Journal Newspapers  
 Capitol Publications  
 Northern Virginia Journal, The  
 Washington Post - Alexandria Bureau, The  
 Alexandria Journal (VA)  
 Washington Post Express  
 Bristol Herald Courier  
 Albermarle Tribune  
 Daily Progress, The  
 Cavalier Daily  
 Chesterfield Observer  
 Washington Post - Fairfax Bureau, The  
 The Iron Blade  
 Free Lance-Star, The  
 Warren County Report Newspaper

Alexandria  
 Alexandria  
 Alexandria  
 Alexandria  
 Alexandria  
 Alexandria  
 Alexandria  
 Arlington  
 Bristol  
 Charlottesville  
 Charlottesville  
 Charlottesville  
 Chesterfield  
 Fairfax  
 Ferrum  
 Fredericksburg  
 Front Royal

Daily News-Record  
 Times Community Newspapers  
 Washington Post - Loudoun County Bureau, The  
 DataTrends Publications  
 Loudoun Times-Mirror  
 News & Advance  
 Washington Post - Manassas Bureau, The  
 Martinsville Bulletin  
 Herndon Connection  
 DC Examiner  
 White House Bulletin  
 USA Today Sports Weekly  
 USA Weekend  
 Daily Press  
 Virginian-Pilot, The  
 The Spartan Echo  
 Virginia Business Observer  
 Progress-Index  
 Southwest Times, The  
 Springfield Times-Courier  
 Virginia Nurses Today  
 Washington Post - Richmond Bureau, The  
 Richmond Free Press  
 Richmond Times-Dispatch  
 Media General Inc.  
 Blue Ridge Business Journal  
 Roanoke Times, The  
 Smithfield Times, The  
 Northern Virginia Daily  
 Tidewater Hispanic News  
 The Piedmont Virginian  
 Washington Post - Fauquier Bureau, The  
 Winchester Star  
 Potomac News

Harrisonburg  
 Herndon  
 Leesburg  
 Leesburg  
 Loudoun County  
 Lynchburg  
 Manassas  
 Martinsville  
 McLean  
 McLean  
 McLean  
 McLean  
 McLean  
 Newport News  
 Norfolk  
 Norfolk  
 Norfolk  
 Petersburg  
 Pulaski  
 Reston  
 Richmond  
 Richmond  
 Richmond  
 Richmond  
 Richmond  
 Roanoke  
 Roanoke  
 Smithfield  
 Strasburg  
 Virginia Beach  
 Warrenton  
 Warrenton  
 Winchester  
 Woodbridge

## Radio

WBTM-AM  
 WGRQ-FM  
 WFVA-AM  
 WTJZ-AM  
 WSVA-AM  
 Virginia News Network - WRVA-AM  
 WVTF  
 WYTI-AM  
 WHEO-AM  
 WYVE-AM/WXBX-FM

Danville  
 Fredericksburg  
 Fredricksburg  
 Hampton  
 Harrisonburg  
 Richmond  
 Roanoke  
 Rocky Mount  
 Stuart  
 Wytheville

## TV

NewsChannel 8

Arlington

WJLA-TV  
Reuters Television - Arlington Bureau  
NewsHour with Jim Lehrer - WETA  
WCYB-TV  
WTKR-TV  
WVIR-TV  
Windmill Broadcasting  
WAVY-TV  
WVEC-TV  
WGNT-TV  
WVBT-TV  
WRIC-TV  
WTVR-TV  
WWBT-TV  
WDBJ-TV

Arlington  
Arlington  
Arlington  
Bristol  
Charlottesville  
Charlottesville  
Irvington  
Norfolk  
Norfolk  
Portsmouth  
Portsmouth  
Richmond  
Richmond  
Richmond  
Roanoke

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**CONFIDENTIAL ATTACHMENT B(2)**

**COMPANIES RECEIVING NEWS RELEASE**

RFP News Release Email List (CONFIDENTIAL)

Salutation	First Name	Last Name	EMail	Company Name	Title
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Confidential Information Redacted

[Redacted Content]

**ATTACHMENT C(1)**

**2014 GENERATION RFP WEBSITE Q&A DOCUMENT**



## **Dominion 2014 Generation RFP Bidder Question & Answer**

**Q1.** Please clarify the scope criteria, which indicate that a qualified resource must be “electrically east” of AEP-Dominion, AP South and Black Oak - Bedington Interfaces.

**R1.** Dominion Virginia will consider facilities directly interconnected to Dominion Zone, Baltimore Gas and Electric Company Zone, and Potomac Electric Power Company Zone as within scope for location. Facilities located in Allegheny Power System Zone will be considered within scope for location if they are interconnected electrically east of the PJM interfaces AEP-DOM, AP South or Black Oak – Bedington. If bidder is uncertain whether a specific interconnection point in Allegheny Power System Zone is considered within scope, please provide facility name and interconnection point in a written question, and Company can provide more specific guidance.

**Q2.** The link provided for the Company’s 2014 IRP is not working, can you provide the correct link?

**R2.** The Company’s 2014 IRP can be found at a new location due to a redesign of the Company’s website: <https://www.dom.com/corporate/what-we-do/electricity/generation/integrated-resource>

**Q3.** Why are PPA proposals limited to offering 20 years?

**R3.** The Company has limited the RFP scope for PPA’s to terms of 10 to 20 years because it believes it will provide the best results for customers. Note that while the base bid must comply with the RFP scope, per Sections 1.C and III.B.13 of the RFP, Bidders may provide alternative Proposals, that may be evaluated at Dominion’s sole discretion.

**Q4.** If the evaluation period is longer than the PPA term, how will the economic evaluation model the capacity that is being supplied by the third party proposal for any remaining years of the evaluation?

**R4.** Please refer to Section 6.3 of the Company's 2014 Integrated Resource Plan ([www.dom.com/library/domcom/pdfs/corporate/integrated-resource-planning/nc-irp-2014.pdf](http://www.dom.com/library/domcom/pdfs/corporate/integrated-resource-planning/nc-irp-2014.pdf)), which provides a description of how the Company evaluates economics of alternative resources, including those with different terms, timing, size, dispatch characteristics and asset lives in its resource planning. The Company expects to utilize a similar methodology for the evaluation of RFP proposals.

**Extraordinarily Sensitive Attachment C(2)**

**POTENTIAL BIDDER QUESTIONS AND COMPANY RESPONSES**

Potential Bidder Questions & Company Responses

Question #	Website #	Company	Question	Response	Date Received	Date Responded/Uploaded to Website	Subject Matter
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Confidential Information Redacted

150710053

Question #	Website Q #	Company	Question	Response	Date Received	Date Responded/ Uploaded to Website	Subject Matter
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Confidential Information Redacted



150710053

150710053

Question #	Website Q #	Company	Question	Response	Date Received	Date Responded/ Uploaded to Website	Subject Matter
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Confidential Information Redacted

150710053

Question #	Webb's Q #	Company	Question	Response	Date Received	Date Responded/ Uploaded to Website	Subject Matter

Confidential Information Redacted

**Extraordinarily Sensitive Attachment D**

**INTENT TO BID FORMS / CONFIDENTIALITY AGREEMENTS RECEIVED  
and INTENT TO BID FORMS REJECTED**



INTENT TO BID FORMS / CONFIDENTIALITY AGREEMENTS RECEIVED

Plant	Bidder	Size (MW)	Fuel	New / Existing	Location	# Proposals to be Submitted
Confidential Information Redacted						

INTENT TO BID FORMS REJECTED

Plant	Bidder	Reason Rejected
Confidential Information Redacted		

**ATTACHMENT E**

**EMAIL WITH SELF-BUILD BID SUBMITTED TO VA SCC STAFF**

**DECEMBER 18, 2014**

**Charlotte P McAfee (Services - 6)**

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**From:** Charlotte P McAfee (Services - 6)  
**Sent:** Thursday, December 18, 2014 11:03 AM  
**To:** William Chambliss  
**Cc:** Reid, Joseph K. III; Lisa S Booth (Services - 6)  
**Subject:** Dominion Virginia Power 2014 Generation RFP: Self-build proposal \*\*CONTAINS  
CONFIDENTIAL INFORMATION\*\*  
**Attachments:** CONFIDENTIAL DVP Self-Build Proposal 12-18-2014.pdf; CONFIDENTIAL Exhibit J-  
Information Form Addendum.xlsx

Bill,

As we discussed during the meeting on October 27, 2014 regarding the 2014 Generation Request for Proposals, attached please find Dominion Virginia Power's sealed bid.

The specific attachments are the proposal document and "Confidential Exhibit J – Information Form Addendum," which includes the associated green sheets and detailed costs for the self-build proposal, which are confidential and are being provided to Commission Staff pursuant to the protections set forth in 5 VAC 5-20-170.

Please let me know if you would like me to send you copies of the other exhibits to the proposal, which are the contracts for turbine supply, PJM interconnection, water and wastewater, and natural gas; as well as the air permit application to DEQ. In addition, please let me know if you would prefer hard copies of any of these materials.

The deadline for third-party proposals is tomorrow at 5pm.

Thank you and please contact me with any questions.  
Charlotte

Charlotte P. McAfee  
Senior Counsel, Law Department  
Dominion Resources Services, Inc.  
120 Tredegar Street, Riverside 2  
Richmond, VA 23219-4306  
[Charlotte.P.McAfee@dom.com](mailto:Charlotte.P.McAfee@dom.com)  
804.819.2277 (office)  
804.310.2183 (cell)

**Extraordinarily Sensitive Attachment F**

**BIDS RECEIVED**

## BIDS RECEIVED

Plant	Bidder	Term	Size (MW)	Primary Fuel	New / Existing	Location
Confidential Information Redacted						
Greensville County	Dominion	N/A	1585	a) Gas Only b) Gas w/liquid	New	Greensville Co, VA

Confidential Information Redacted

150710053

**Extraordinarily Sensitive Attachment G**

**DATA REQUESTS AND RESPONSES**

150710053

DATE SENT/RECEIVED

RESPONSE

QUESTION

FACILITY/BIDDER

Confidential Information Redacted

150710053

DATE SENT/RECEIVED

RESPONSE

QUESTION

FACILITY/BIDDER

Confidential Information Redacted



150710053

DATE SENT/RECEIVED

RESPONSE

QUESTION

FACILITY/BIDDER

Confidential Information Redacted

DATE SENT/RECEIVED

RESPONSE

QUESTION

FACILITY/BIDDER

Confidential Information Redacted

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DATE SENT/RECEIVED

RESPONSE

QUESTION

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DATE SENT/RECEIVED

RESPONSE

QUESTION

FACILITY/BIDDER

Confidential Information Redacted

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DATE SENT/RECEIVED

RESPONSE

QUESTION

FACILITY/BIDDER

Confidential Information Redacted